

Lock Power Infinity

User Manual & Technical Documentation

1. Product Overview & Component Descriptions

A. Perovskite PV Panel: Engineered with highly sensitive Perovskite Photovoltaics (PV) technology specifically optimized for low-lux porch environments and ambient natural light. It enables 24/7 continuous micro-energy harvesting even under dim dawn, dusk, or overcast conditions to deliver a reliable, persistent power loop for your smart lock.



B. Power Button & LED Indicator: A physical button controls the system's operational state. The hidden minimalist LED indicator remains off during standby and only activates during specific interactive modes:

- **Power Toggle:** Press and hold the power button to turn the device on or off. The Blue LED breathes once to confirm the state transition.
- **High-Current Assist:** When the smart lock's primary batteries are fully depleted, the Blue LED stays solid while delivering instantaneous high-current power to assist unlocking.



C. 90° L-Shaped Type-C Connector: An ultra-low-profile plug customized for emergency power ports at the bottom of mainstream smart locks. The 90-degree right-angle design allows the

cable to run flush against the lock body, minimizing external protrusion and avoiding accidental tugs or snags.



D. Retractable Hidden Cable: Features an internal, high-durability recoil mechanism housing a cable stretchable up to 30 cm. This enables flexible length adjustment according to the mounting distance; any excess cable retracts automatically into the enclosure, preventing unsightly slack and wind-induced shaking.



E. 3M VHB™ Industrial Adhesive: Pre-applied heavy-duty industrial 3M VHB™ adhesive on the backplate. It boasts exceptional UV, weather, moisture, and temperature resistance, securing a permanent hold over multi-seasonal use on surfaces like iron, wood, and aluminum alloy doors.



2. Packing List & Pre-Installation Setup

What's in the Box:

1. Lock Power Infinity Main Unit × 1
2. Micro USB to Type-C Premium Adapter × 1
3. Loofae Translucent Logo Sticker × 1

Pre-Installation Setup:

[CRITICAL: Do not skip the activation step]

To ensure the device functions immediately upon mounting, complete the system activation prior to installation:

1. System Activation: Press and hold the power button. The Blue LED will breathe once and turn off, confirming that the system has successfully awakened from factory shipping mode and is now powered on.
2. Ready for Mount: Once activated, the device is fully ready to be mounted and connected to your lock. *(Note: If you wish to manually verify the unit's power status before sticking it to the door, please refer to FAQ Q2 for the optional validation steps.)*

3. Installation Instructions

Step 1: Site & Environment Check

- Applicable Environment: Designed for spaces with natural or ambient light harvesting potential, such as main doors with porches, awnings, or semi-outdoor entrances.
- Prohibited Areas: DO NOT install in windowless interior apartment hallways or completely dark rooms completely devoid of ambient light.

- **Light Requirement:** A baseline daytime ambient light level of at least 2,000 Lux is highly recommended at the mounting location for optimal power looping.
- **Surface Preparation:** Thoroughly wipe down the door mounting area and lock interface with a clean cloth. Remove all dust, grease, moisture, and debris to ensure a dry surface.



Step 2: Adjust Cable Length & Test Fit

Place the unit close to the door (keep the adhesive liner on) to gauge the distance to the emergency port. Gently pull out the built-in retractable cable to the desired length and plug it into the lock to test the fit. For locks with Micro USB ports, attach the included Micro USB-to-Type-C adapter first.



Step 3: Mount the Unit

Unplug the connector after verifying the alignment. Peel off the 3M VHB™ adhesive liner from the backplate. Position the unit horizontally on the door, then press down firmly with your palm across the entire housing for at least 30 seconds.



⚠ CRITICAL ADHESIVE NOTE: The adhesive requires 72 hours (3 days) to achieve 100% maximum bonding strength. DO NOT tug or stress the unit or cable during this period.

Step 4: Installation Complete

Thanks to the retractable cable design, any excess slack cable automatically recoils into the main housing. No external clips, zip ties, or tapes are required. Your door entrance remains perfectly sleek and minimalist.

4. Technical Specifications & FAQ

Parameter	Technical Specification
Battery Capacity	1000mAh / 3.7Wh (Lithium-ion)
Input & Output	5V / 1A (Type-C Interface)
Operating Temperature	Normal range: -40°C to 60°C (-40°F to 140°F). Tolerable short-term exposure up to 100°C (212°F). Keep away from fire.
IP Rating	IP64 (Dust-tight and splash-resistant)
Certifications	FCC Part 15, UL 2056, UN 38.3, RoHS 2.0 compliant (Lead traces within legal limits of Exemption Clause 7c-I)

Safety & Disposal:

Do not crush or scratch the glass panel. If structural cracking occurs, cease use immediately. This product contains hazardous e-waste (Lithium battery and Perovskite materials). Do not mix with household trash; drop off at a certified local e-waste recycling facility.

Frequently Asked Questions**Q1: When does the LED light up?**

A: Three scenarios: ① Blue LED breathes once on power-on/off; ② Blue stays solid during high-current unlock assist; ③ Green stays solid when charging via a wall charger. It stays completely off during normal standby.

Q2: How do I know if the unit is on or has charge?

A: [Optional Method] Before mounting, connect the retractable Type-C cable to an Android phone. If the phone charges, the unit is on and has power. If there is no response, the switch may be OFF or the battery is depleted. If depleted, you can recharge it by plugging a standard Type-C wall charger into the unit's Type-C interface; the LED will turn solid Green during charging. *(Note: If you have verified the switch is ON, you can skip this test.)*

Q3: What if the lock runs out of power in an emergency?

A: The unit detects high-current demands and delivers power automatically, illuminating the Blue LED. If the unit itself is low on charge due to a prolonged lack of light, expose the panel to a light source (outdoor natural light or a phone flashlight at close range) for about 5 minutes to quickly harvest enough power for an emergency unlock.

Q4: Why can't it be used indoors?

A: The device relies on ambient light for continuous energy harvesting (minimum daytime 2,000 Lux recommended). Fully indoor windowless environments cannot sustain the system's power cycling.

Q5: Can I remove the lock's original batteries?

A: Yes, Lock Power Infinity has the independent capability to drive the door lock. However, we highly recommend keeping the lock's original batteries inside as a backup for dual redundancy.

Warranty & Support:

Provides an 18-Month Limited Warranty from the date of purchase. For installation, support, or 30-day policy inquiries, please contact us via our official website or customer support email.